# BRUHAT BANGALORE MAHANAGARA PALIKE

## DASARAHALLY ZONE

### DIVISION: DASARAHALLY

### SUB DIVISION: SHETTYHALLI

**Name of work:** *Drilling of borewells and Providing pump motor at Chikkasandra & Medarahalli Villages and Surrounding area in Ward No.12, Shettyhalli Sub Division.*

***Job No : 012-18-000020***

***Estimated Cost : Rs 50.00 Lakhs***

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# BRUHATH BANGALORE MAHANAGARA PALIKE,

**Name of Work: Drilling of borewell and Providing Pump motor at chikkasandra and Medarahalli Villages and surrounding area in Ward No 12, Shettyhalli sub Division**

*Job Code-012-18-000020* *Est Cost Rs 50.00 Lakhs*

| Sl No | Description | Unit | Nos | L | B | D | Qty. | Rate | Amount |
|---|---|---|---|---|---|---|---|---|---|
| 1 | **Geophysical investigation of site for sinking borewell** for supplying drinking water to the habitation either through the hand pump, MWS or P.W.S.S. by vertical electrical sounding by adopting venner or schlumbergers's method, including reconnaissance survey of geological formation, Geological investigation of existing ground water in vicinity, its quality, quantity & acceptability of the users indicating the location of site, recommended depth of casing pipe required to seal the top unconsolidated formation including an extra depth of 1.0 mtr in consolidated formation for proper seating of casing pipe, depth of drilling required to cover full depth of aquifer proposed to be tapped, probable yield and other information required including transportation of instrument and accessories to work site, engaging technical personal and labour required etc (P.NO-47, I.NO-9.4, PRED 12-13 SR) | | | | | | | | |
| | | Each | 5 | | | | 5 | 1882.00 | **9410.00** |
| | Basic Rate | 1882.00 | | | | | | | |
| 2 | **Sinking of borewell of 165 mm dia clear** using super fast hydraulic rig of capacity 250 PSIG & above 900 CMF & above in all strata including over budern upto 20 m fixing of casing pipes, collars & cap with necessary cutting, threading & welding including transportation of rig and supporting vehicle, crew charges & cost of consumables etc., complete including yield testing at the final depth with minimum working of compressor for one hour(excluding cost of casing pipes, collars, cap etc.,) (P.NO-47, I.NO-9.1, PRED 12-13 SR) | | | | | | | | |
| | 0.00 to 50.00 Mtr. | Mtr | 5 | 50.00 | | | 250.00 | 315.18 | **78795.00** |
| | 50.00 to 100.00 Mtr. | | 5 | 50.00 | | | 250.00 | 412.60 | **103150.00** |
| | 100.00 to 150.00 Mtr. | | 5 | 50.00 | | | 250.00 | 458.35 | **114588.00** |
| | 150.00 to 200.00 Mtr. | | 5 | 50.00 | | | 250.00 | 484.10 | **121025.00** |
| | 200.00 to 250.00 Mtr. | | 5 | 50.00 | | | 250.00 | 560.32 | **140080.00** |
| | 250.00 to 300.00 Mtr. | | 5 | 50.00 | | | 250.00 | 600.00 | **150000.00** |
| | 300.00 to 320.00 Mtr | | 5 | 20.00 | | | 100.00 | 640.60 | **64060.00** |
| | Basic Rate | 306.00 | | | | | | 622.00 | |
| 3 | Supplying of ISI Mark **175 mm nominal bore medium black ERW casing pipe** of 5mm thick black electric resistance continous welded midle steel tube material confirming to IS 1387/1993 and manufactured from hot rolled steel skelp/stripes in random length of 4 to 7 mtr both ends threaded confirming to IS 554/1985 one end(including of all taxes) (P.NO-III, I.NO-84, PRED 12-13 SR) | | | | | | | | |
| | | Mtr | 5 | 69.00 | | | **345.00** | 1325.00 | **457125.00** |
| | Basic Rate | 1325.00 | | | | | | | |
| 4 | Providing and fixing **250mm dia PVC pipe** and as per specification and directions. ( BWSSB SR 13-14, P.No.53 I.no.1 of sl.no.11.) | | | | | | | | |
| | | Each | 5 | 18.00 | | | **90.00** | 1133.00 | **101970.00** |
| | Basic Rate | 1100.00 | | | | | | | |
| | 3% area weightage | 33.00 | | | | | | | |
| | **Total** | **1133.00** | | | | | | | |

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|---|---|---|---|---|---|---|---|---|---|
| 5 | 175 mm dia **M.S. Casing cap** (P.NO-III, I.NO-85, PRED 12-13 SR) | | | | | | | | |
| | | Each | 5 | | | | **5** | 100.00 | **500.00** |
| | Basic Rate | 100.00 | | | | | | | |
| 6 | supply of 175mm **M.S collars** each (P.NO-III, I.NO-86, PRED 12-13 SR) | | | | | | | | |
| | | Each | 5 | 12 | | | **60** | 150.00 | **9000.00** |
| | Basic Rate | 150.00 | | | | | | | |
| 7 | Supply & delivery at site brand **new toxmo/Innoval/lubi/sabar /Atalanta/calamal/** waterman/Radha make **suitable HP deep well submercible pumpset** suitable for vertical installation in 150 dia borewells compressing of single stage or multistage CF pump close coupled by means of stainless steel coupling to suitable HP suitable speed totally enclosed and filled with pure drinking water squirrel cagesubmercible induction motor suitable for operation of 3Ph, 50Hz 350/440 volts AC supply fitted with required accessories such as suction, casing, suction strainers, sand guard. Non return valve etc Complete the pump and motor shall from an integral unit with all the required fittings 15.000. HP 25 stage **(P.NO-XXXX, I.NO-30, PWD SR-2016-17)** | | | | | | | | |
| | For New Borewells | set | 5 | | | | 5 | | |
| | additional pumps for replacing the fully damaged pumps | | 2 | | | | 2 | | |
| | Total | | | | | | **7** | 69334.60 | **485342.20** |
| | Basic Rate | 65410.00 | | | | | | | |
| | 6% area weightage | 3924.60 | | | | | | | |
| | **Total** | **69334.60** | | | | | | | |
| 8 | **Providing, laying & jointing GI pipes** confirming to IS specification of approved make with fittings such as collars bends elbows tees nipples plugs with cuts threads using white lead & threads for joints wherever necessary as per direction including all lead & lift etc,. complete 'A' grade(excluding cost of fittings)b 50mm dia GI pipe **(PWD SR-2016-17, P.No.XVII Sl.no. 509)** | | | | | | | | |
| | | Rmtr | 5 | 270.00 | | | **1350.00** | | |
| | | | 2 | 270.00 | | | **540.00** | | |
| | Total | | | | | | **1890.00** | 340.26 | **643091.40** |
| | Basic Rate | 321.00 | | | | | | | |
| | 6% area weightage | 19.26 | | | | | | | |
| | **Total** | **340.26** | | | | | | | |
| 9 | **Supplying and drawing 3 core PVC** Sheathed submersible pump **cable** manufactured with electrolytic grade copper with flexible copper conductor confirming to table 3 class 5 of IS: 8130-1984 and virgin grade PVC insulation and sheathed suitable for working voltage upto 1100 volts 4 sqmm of 56 strands 0 3mm dia **(P.535, It 30 (c), Group A BWSSB 13-14 SR)** | | | | | | | | |
| | | Mtr | 5 | 560.00 | | | **2800.00** | | |
| | | | 2 | 560.00 | | | **1120.00** | | |
| | Total | | | | | | **3920.00** | 164.29 | **643997.20** |
| | Basic Rate | 159.50 | | | | | | | |
| | 3% area weightage | 4.79 | | | | | | | |
| | **Total** | **164.29** | | | | | | | |

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|---|---|---|---|---|---|---|---|---|---|
| 10 | **Supplying & delivery at site brand new** / Essen / Lotus sunsines/Adarsh/ Gk Controls best indigenous make combine energy meter-cum-control **panel board unit** of size 1200 x 600 x 300 mm minimum mechanically strong and vermin and water proof the unit shall have two detachable doors suitable for operation on 3ph, 50Hz, 380/440 volts, AC supply with spring loaded latch locking with a key nbs should be provided inside the door , canopy apron and louvers ventilators shall be provided the combine energy mtr cum control panel board unit suitable for operation on 3ph, 50Hz, 380/440 AC supply shall be consisted etc,. completed T panel board shall be fabricated on single unit in the above components panel board for suitable pumpset above components panel board for suitable pumpset above 6.50 HP to 15.00 HP with star delta starter (MR) | | | | | | | | |
| | | no | 5 | | | | 5 | | |
| | | | 2 | | | | 2 | | |
| | | | | | | | 7 | 14800.00 | 103600.00 |
| 11 | **Fabricating supplying and mounting MS box** of 16 SWG suitable for floor / wall mounting, fully weather proof with provision for better hear description, (providing with hinged front cover, equipped with tamper proof locking arrangements, with suitable size clamps with necessary cable entry pipe with gland and box should be finished 2 coats of red oxide primes paint and finally finished with approved colour enamelled metal paint etc,. complete box of 21600 sq cm **(P.NO-530, I.NO-39 b, BWSSB SR 13-14)** | | | | | | | | |
| | | Sqm Cm | 5 | 1100.00 | 20.00 | | 110000.00 | | |
| | | | 2 | 1100.00 | 20.00 | | 44000.00 | | |
| | Basic Rate | 0.33 | | | | | 154000.00 | 0.34 | 52345.00 |
| | 3% area weightage | 0.01 | | | | | | | |
| | **Total** | **0.34** | | | | | | | |
| 12 | **Providing & Fixing of clamps set** and borewell cap to the pump (MR) | | | | | | | | |
| | | No's | 7 | | | | 7 | 690.00 | 4830.00 |
| 13 | Supplying & delivery of brand new best make non return valve of size 50mm as per IS 778/84 with latest amendments with ISI mark ( 50mm Gate wheel Valve. **(PWD SR-2015-17, P.NO.XXIII, Sl.no, 659)** | | | | | | | | |
| | | No's | 7 | 1.00 | | | 7.00 | 1213.70 | 8496.00 |
| | Basic Rate | 1145.00 | | | | | | | |
| | 6% area weightage | 68.70 | | | | | | | |
| | **Total** | **1213.70** | | | | | | | |
| 14 | Supplying and delivery of brand new best make **Gate Valve of size 50mm** as per IS. 778/84 with latest amendments with ISI mark . 50mm Gate Valve for distribution pipeline. 50mm dia **(PWD SR-2016-17, P.NO.XXIII, Sl.no, 673)** | | | | | | | | |
| | | No's | 7 | 1 | | | 7 | 1696.00 | 11872.00 |
| | Basic Rate | 1600.00 | | | | | | | |
| | 6% area weightage | 96.00 | | | | | | | |
| | **Total** | **1696.00** | | | | | | | |
| 15 | Providing and fixing of **50mm GI Short bend** to motor (PWD SR-2014-15, P.NO.XXXIX, G.I. Pipe Fittings - ISI Standards Table) | | | | | | | | |
| | | No's | 7 | 1 | | | 7 | 232.14 | 1625.00 |
| | Basic Rate | 219.00 | | | | | | | |

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| | 6% area weightage | 13.14 | | | | | | | |
| | **Total** | **232.14** | | | | | | | |
| 16 | Providing and fixing of **50mm GI union** to the motor (PWD SR-2014-15, P.NO XXXIX, G.I. Pipe Fittings - ISI Standards Table) | | | | | | | | |
| | | No's | 7 | 1 | | | **7** | 237.12 | **1660.00** |
| | Basic Rate | 223.70 | | | | | | | |
| | 6% area weightage | 13.42 | | | | | | | |
| | **Total** | **237.12** | | | | | | | |
| 17 | suppling & fixing of 50mm GI Elbow **PWD SR 15-16 XXXIX** | | | | | | | | |
| | | No's | 7 | | | | **7** | 111.80 | **783.00** |
| 18 | **Labour charges for erection of new** /repaired submersible pumpset along with GI pipes (32/50mm) cable (new submersible pumpset if required will be supplied by the department free of cost and released pump set should be handed over to department) including transportation (each length = 6.00m) **(P.No - 564, I.No - 3, BWSSB SR 13-14)** | | | | | | | | |
| | | Per length | 7 | 50 | | | **350** | 90.64 | **31724.00** |
| | Basic Rate | 88.00 | | | | | | | |
| | 3% area weightage | 2.64 | | | | | | | |
| | **Total** | **90.64** | | | | | | | |
| 19 | **Erection of combined panel board meter** board with all necessary materials and labour including providing CC 1:3:6 foundation bed etc,. Complete for basement out door type. (MR) | | | | | | | | |
| | | No's | 7 | 1 | | | **7** | 475.00 | **3325.00** |
| 20 | **Supplying and fixing miniature circuit breakers**/isolators in existing MCB distribution boards using necessary fixing materials and wiring complete as required. 40 to 63 Amps DP **(P-526, It - 13D (a), BWSSB SR 13-14)** | | | | | | | | |
| | | No's | 7 | 1 | | | **7** | 906.40 | **6345.00** |
| | Basic Rate | 880.00 | | | | | | | |
| | 3% area weightage | 26.40 | | | | | | | |
| | **Total** | **906.40** | | | | | | | |
| 21 | **Supplying and laying of L.T.U.G Cable** having aluminiumconductor PVC insulated shethed galvanised steel wire/ steel tape armoured cable with PVC outer sheathing 1.1 KV class 4 core 16 sqmm cable ( confirming to IS 1554) **(P.NO - 553, I.NO - 10 (d), BWSSB SR 13-14)** | | | | | | | | |
| | | Mtr | 7 | 45.00 | | | **315.00** | 169.95 | **53534.00** |
| | Basic Rate | 165.00 | | | | | | | |
| | 3% area weightage | 4.95 | | | | | | | |
| | **Total** | **169.95** | | | | | | | |
| 2 | **Digging of trenches** of 0.6mm x 0.50 Mtrs wide refilling the trench to the required ground level and consolidating etc,. Complete sutting road surfaces **(P.NO - 554, I.NO - 12 (b), BWSSB SR 13-14)** | | | | | | | | |
| | | Mtr | 7 | 45.00 | | | **315.00** | 56.65 | **17845.00** |

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| | Basic Rate | 55.00 | | | | | | | |
| | 3% area weightage | 1.65 | | | | | | | |
| | **Total** | **56.65** | | | | | | | |
| 23 | Supplying and fixing **Class-A GI Pipe on pole/ wall/drain** crossing with necessary clamping arrangements for UG Cable of 1.1 KV class 40mm (P.NO - 555, I.NO - 15 (b), BWSSB SR 13-14) | | | | | | | | |
| | | Mtr | 7 | 3 | | | **21** | 249.26 | **5234.00** |
| | Basic Rate | 242.00 | | | | | | | |
| | 3% area weightage | 7.26 | | | | | | | |
| | **Total** | **249.26** | | | | | | | |
| 24 | Supplying and fixing wiring **earth electrode for grounding** conduits, IC cutouts and other equipments on the meter board using 40mm dia 2.90 mm thick GI pipe 2.5 m long buried in a pit,/ the pit should be filled with equal proportion of salt and charcoal 150 mm around the pipe to complete depth the connections from the pipe to the conduit etc,. is to be established though GI wire of size as per ISI specification 7.3.3 of ISI 732 using 12mm dia boalts, nuts washers and checknuts etc., the pipe shall have 16 through holes of 122mm dia **(P.NO - 552, I.NO - 7 , BWSSB SR 13-14)** | | | | | | | | |
| | | No's | 7 | | | | **7** | 1699.50 | **11897.00** |
| | Basic Rate | 1650.00 | | | | | | | |
| | 3% area weightage | 49.50 | | | | | | | |
| | **Total** | **1699.50** | | | | | | | |
| 25 | **Supply and fixing LT cast iron pot heads** suitable for 1.1 KV class 16 sqmm UG cable filled with necessary bitumen/ insulating compound complete with terminals, clamps, bolts nuts and washers etc, **(P.NO - 555, I.NO - 16 (b) , BWSSB SR 13-14)** | | | | | | | | |
| | | No's | 7 | | | | **7.00** | 271.92 | **1903.00** |
| | Basic Rate | 264.00 | | | | | | | |
| | 3% area weightage | 7.92 | | | | | | | |
| | **Total** | **271.92** | | | | | | | |
| 26 | **Supplying shunt capacitor's** confirming to IS 2834, 3phase 400/440 volts grade for power factor improvement of roating machinery capacitor in KVAR rating No's. (MR) | | | | | | | | |
| | | No's | 7 | | | | **7** | 1350.00 | **9450.00** |
| 27 | Providing and fixing **Gun Metal Gate wheel valve** confirming to IS specification or approved make as per direction including all lead and lift etc,. Complete. 50mm dia (P.NO - 554, I.NO - 13.79.6, PWD SR-2016-17) | | | | | | | | |
| | | No's | 7 | 3 | | | **21** | 1526.40 | **32054.00** |
| | Basic Rate | 1440.00 | | | | | | | |
| | 6% area weightage | 86.40 | | | | | | | |
| | **Total** | **1526.40** | | | | | | | |
| 28 | Supplying and fixing of **polished wood board** made of not less than 15mm thick planed on both sides with planks made out on not more than 2 pieces and fixing the same to wall using tapered inverted wooden plugs screws etc., Size 20 x 20 x 2.5 inches (P.NO - 521, I.NO - 2 (f), BWSSB SR 13-14) | | | | | | | | |

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| | | No's | 5 | | | | **5** | 311.58 | **1558.00** |
| | Basic Rate | 302.50 | | | | | | | |
| | 3% area weightage | 9.08 | | | | | | | |
| | **Total** | **311.58** | | | | | | | |
| 29 | **Earthwork excavation for** foundation of buildings, **water supply,** sanitary lines and electrical conduits either in pits or in trenches 1.5m and above in width, in hard soil not exceeding 1.5 m in depth including dressing the bottom and sides of pits and trenches, stacking the excavated soil clear from edges of excavation with lead upto 50m after breaking of clods complete as per specifications **(P.NO - 5, I.NO - 2.4, PWD SR-2016-17)** | | | | | | | | |
| | Borewell Surroundings connections | Cum | 5 | 295.00 | 0.60 | 0.90 | 796.50 | | |
| | For repairing existing damaged pipes | | 3 | 290.00 | 0.60 | 0.90 | 469.80 | | |
| | | | 2 | 285.00 | 0.60 | 0.90 | 307.80 | | |
| | | | | | | | **1574.10** | 299.98 | **472198.52** |
| | Basic Rate | 283.00 | | | | | | | |
| | 6% area weightage | 16.98 | | | | | | | |
| | **Total** | **299.98** | | | | | | | |
| 30 | **Providing and installing at site of work 63mm** (0.662) **PVC Pipes** of 6 kg / cm2 including cost of pipes and specials and labour, including lowering into trenches, laying true to line, level and perfect linking at joints leak proof including jointing of approved type with all labour and lift charges, handling charges including encasing the pipe alround to a depth not less than 15cms with gravel or selected earth available from the excavation etc., complete **(P.NO - 115, I.NO - 3.42 B, PRED SR-2012-13)** | | | | | | | | |
| | | Mtr | 5 | 295.00 | | | 1475.00 | | |
| | | | 3 | 290.00 | | | 870.00 | | |
| | | | 2 | 285.00 | | | 570.00 | | |
| | | | | | | | **2915.00** | 123.00 | **358545.00** |
| | Basic Rate | 123.00 | | | | | | | |
| 31 | **Refilling available earth around pipe lines**, cables in layers not exceeding 20cms in depth, compacting each deposited layer by ramming after watering with lead upto 50m and lift upto 1.5m including cost of all labour complete as per specifications **(P 6, It - 2.11, PWD SR-2016-17)** | | | | | | | | |
| | | Cum | 5 | 295.00 | 0.60 | 0.90 | 796.50 | | |
| | | | 3 | 290.00 | 0.60 | 0.90 | 469.80 | | |
| | | | 2 | 285.00 | 0.60 | 0.90 | 307.80 | | |
| | | | | | | | **1574.10** | 76.32 | **120135.31** |
| | Basic Rate | 72.00 | | | | | | | |
| | 6% area weightage | 4.32 | | | | | | | |
| | **Total** | **76.32** | | | | | | | |
| 32 | **KPTCL Deposit charges** | | | | | | | | |
| | | Each | 5 | | | | 5 | 13000.00 | **65000.00** |

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|---|---|---|---|---|---|---|---|---|
| Borewell registration charges per Rs 1000 each for BWSSB | | | | | | 5 | 1000.00 | 5000.00 |
| | Each | 5 | | | | | | |
| | | | | | | | Sub Total | 4503092.63 |
| | | | | | | | | |
| Add TP and other Charges | | | | | | | | 495340.00 |
| Miscellaneous and unforseen Charges | | | | | | | | 1567.37 |
| | | | | | | | TOTAL | 5000000.00 |

(Rupees Twenty Lakhs Only)

BWSSB SR 13-14

The Provision made in estimate are adequate and essential.

This area comes under BBMP limits.

Assistant Engineer
Ward-12

Asst. Exeutive Engineer
Shettyhalli Sub-division
BBMP, Bangalore

Exeutive Engineer
Dasarahalli division
BBMP, Bangalore

ಸಂ.EE/DD/AS/618-19 ದಿನಾಂಕ : 19-12-2017

ರೂ. 50 lakhs (fifty lakhs) Only

ನಾಮು ಪಟ್ಟಿಗೆ ಆಡಳಿತಾತ್ಮಕ ಮಂಜೂರಾತಿ ನೀಡಿದೆ

P-ud. 0190

ಕಾರ್ಯಪಾಲಕ ಅಭಿಯಂತರರು
ಬಿ.ಬಿ.ಎಂ.ಪಿ. ದಾಸರಹಳ್ಳಿ ವಿಭಾಗ
ದಾಸರಹಳ್ಳಿ ವಲಯ, ಬೆಂಗಳೂರು.

ನಂ. CE/TS/378/17-18 ದಿನಾಂಕ : 20/12/2017

ರೂ. 50 ಲಕ್ಷಗಳು ಮಾತ್ರ

CRs - fifty lakhs only

ಗಡ ಅಂದಾಜು ಪಟ್ಟಿಗೆ ತಾಂತ್ರಿಕ ಮಂಜೂರಾತಿ ನೀಡಿದೆ.

P-ud. 0190

ತಾಂತ್ರಿಕ ಸಹಾಯಕರು

ಮುಖ್ಯ ಅಭಿಯಂತರರು
ಬಿ.ಬಿ.ಎಂ.ಪಿ.
ದಾಸರಹಳ್ಳಿ ವಲಯ, ಬೆಂಗಳೂರು.

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